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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
VERBITSKY, GAIL KAPLAN	
ART UNIT	**PAPER NUMBER**
2859	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/629,186	PARK, SUN	
	Examiner	Art Unit	
	Gail Verbitsky	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,11-21 and 25-30* is/are rejected.

7)☒ Claim(s) *8-10 and 22-24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 2 is finally objected to because of the following informalities: claim 2 is substantially redundant to claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7, 11, 14-21, 25-30 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art admitted by applicant in the specification, pages 2-3 and Fig. 5 [hereinafter Prior Art] in view of Jones et al. (U.S. 5167519) [hereinafter Jones].

Prior art discloses in Fig. 5 the device/ thermocouple junction box in the field of applicant's endeavor comprising a metal cup (contact element) 220 made of K-type material (metal), a stainless steel threaded stud 203 is disposed in a pigtail (wire) 202 which provides an electrical connection between a thermocouple hot junction 415 and the cup 220. As shown in Fig. 5, there is a washer or lug (movable conductive element) 204 disposed onto the stud 203 for connection of the pigtail 202 to a thermocouple cable.

Prior art does not explicitly state that the stud 203 is electrically isolated from the cup 220, as stated in claim 1, in combination with the remaining limitations of claims 1-7, 11, 14-21, and 25-30.

Jones discloses in Figs. 1-2 a device in the field of applicant endeavor a device wherein a stud 33 is insulated/ isolated by means of an insulation sleeve 44 from a block (cup/ contact element) 9 so as to avoid a possibility of a short circuit.
For claim 30: a metallic connecting portion 33 for positioning a thermocouple cable/ wires such that they electrically connect to a thermocouple sensing/ hot junction is electrically isolated from the junction and the cable.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add an insulation, as taught by Jones, to the stud of the device, disclosed by Prior art, so as to avoid a possibility of a short circuit, as already suggested by Jones.

4. Claim 12 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art and Jones in view of Champoux et al. (U.S. 4202242) [hereinafter Champoux].

Prior art and Jones disclose the device as stated above in paragraph 3.

They do not teach the limitations of claim 12.

Champoux teaches to attach one structure to another by using interference fit.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Prior Art and Jones, so as to attach the stud to the cup by means of interference fit, as taught by Champoux, to

the insulation material, so as to ensure a tight seal between the stud, insulation and cup, protecting the device from water related damage.

5. Claim 13 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art and Jones.

Prior art and Jones disclose the device as stated above in paragraph 3.

They do not teach the limitations of claim 13, because although they show the attachment of the stud to the insulation and to the cup, they do not explicitly teach using brazing or welding, as stated in claim 13.

With respect to claim 13: using brazing or welding to attach the stud to the cup, absent any criticality, since it is very well known in the art to attach two structures together using brazing or welding. Therefore, the use of brazing or welding to attach the stud to the insulation and the cup, absent any criticality, is only considered to be nothing more than a choice of engineering skill, the choice or design, because: 1) neither non-obvious nor unexpected results, i.e., results which are different in kind and not in degree from the results of the prior art, will be obtained as long as the stud is attached to the insulation and the cup as already suggested by Prior art and Jones, 2) brazing or welding claimed by applicant and the attachment used by Prior art and Jones are very well known alternate types of attaching means which will perform the same function, if one is replaced with the other, of attaching the stud to the insulation and the cup, if one is replaced with the other, and 3) the use of brazing or welding by applicant is considered to be nothing more than the use of one of the numerous and well known

alternate types of attaching means that a person having ordinary skill in the art would have been able to provide using routine experimentation in order to sealingly attach the stud to the insulation and the cup.

Allowable Subject Matter

6. Claims 8-10 and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky
Primary Patent Examiner, TC 2800

October 29, 2004